

## Higher Power Density Downstream Plasma

### ABSTRACT

A method and system to obtain a high power density plasma to efficiently generate  
5 high concentrations of plasma downstream from one or more plasma sources. A first  
embodiment of the invention involves a method to provide an improved power density for  
dissociating one or more gases to create plasma. A second embodiment of the invention  
involves a method to provide multiple chambers for dissociating one or more gases to  
create plasma. A third embodiment involves an apparatus using a constriction in a  
10 discharge chamber containing one or more gases, to provide an improved power density  
for dissociating one or more gases to create plasma. A fourth embodiment involves an  
apparatus using a constriction in multiple discharge chambers containing one or more  
gases, to provide an improved power density for dissociating one or more gases to create  
plasma.

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